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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,701	12/07/2001	George Milton Ehemann JR.	PU010292	5146

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EXAMINER	
CLEVELAND, MICHAEL B	
ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/008,701	Applicant(s) EHEMANN ET AL.	
	Examiner Michael Cleveland	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "after each discharging step" in claim 1 is unclear because only one discharging step is claimed.

Claims 2 and 4: The terms "the negative voltage" and "the positive voltage" are unclear because they lack antecedent basis in claim 1. (The Examiner recommends adopting language similar to that of claims 3 and 5.)

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ritt et al. (U.S. Patent 4,917,978, hereafter '978).

'978 teaches

applying an organic conductive layer (32) on the faceplate panel (Fig. 4);

applying an organic photoconductive layer (34) on the organic conductive layer (col. 4, lines 8-18);

charging the organic photoconductive layer to a desired (positive) voltage , thereby giving the organic photoconductive layer a surface charge of one polarity (col. 5, lines 3-10);

sequentially discharging selected portions of the charged organic photoconductive layer (col. 5, lines 10-20); and

affixing a color-emitting phosphor having a charge of the opposite polarity (col. 5, lines 31-33)of the organic photoconductive layer onto the charged portions of the organic photoconductive layer after the discharging step (col. 4, lines 61-68).

Claim 4: The photoconductive layer may be charged to +200 to +400 volts (col. 5, lines 3-5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritt '978.

Claim 2: '978 is discussed above. It teaches that the photoconductive layer is positively charged (col. 5, lines 3-5) and the phosphors are negatively charged (col. 5, lines 31-33), but does not explicitly teach that the substrate may be negatively charged.

Because the method of col. 5, lines 3-5 and col. 5, lines 31-33 would be recognized to have worked by the attraction of the negatively charged particles for the positively charged photoconductive layer (col. 4, lines 61-68), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used positively charged particles and a negatively charged photoconductive layer with a reasonable expectation of success because the reversal of the polarity of the layer and particles would have been expected to have produced the

same results. The reversal of polarity is sufficiently similar to the facts in the case of *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955). See MPEP 2144.04.VI.A.

Claim 6: '978 teaches methods of attraction development (in which the deposited material has the opposite charge from the photoconductive layer (col. 4, lines 61-68)) and reversal development (in which the deposited material has the same charge as the photoconductive layer (col. 5, lines 33-39)). It teaches the deposition of multiple colors of phosphors in different locations (col. 5, lines 3-57), but does not explicitly teach at least that one phosphor color is deposited by attraction development and another by reversal development. However, it has been held that it is *prima facie* obvious to combine equivalents for the same purpose. (MPEP 2144.06). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined a method of reversal development of one phosphor with an attraction development method of depositing another phosphor because both would have been expected to have successfully deposited the phosphor in the desired locations (col. 4, line 61-col. 5, line 57).

8. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritt '978 as applied to claims 1 and 2 above, and further in view of Haneda (U.S. patent 4,666,804, hereafter '804).

Ritt '978 is discussed above. It teaches that the phosphors may be negatively or positively charge. It does not teach the magnitude of the charge (i.e., that the phosphor particles have a charge of magnitude of 2-10 μC/g. '804 teaches that particle charges of 5-30 μC/g are suitable for electrostatic application of the particles (col. 19, lines 41-49). The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a particle charge of 5 μC/g as the particular charge of the particles of '978 because '804 demonstrates that such charges are operative for electrostatic coating processes.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (703) 308-2331. The examiner can normally be reached on Tuesday-Friday and alternate Mon, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Michael Cleveland
Patent Examiner